

CONNECTICUT MEDICAL ASSISTANCE PROGRAM DEPARTMENT OF SOCIAL SERVICES

& ACENTRA HEALTH QUARTERLY NEWSLETTER



What's the Hype with Hypertension

Hypertension (HTN) is a common chronic condition characterized by elevated blood pressure (BP). The development of HTN can be multifactorial with contributing factors such as genetics, lifestyle, diet, and comorbid conditions. If left untreated, HTN leads to cardiovascular and heart disease, the latter being the leading cause of death in the United States (US) and worldwide.¹ The National Center for Health Statistics reported that the prevalence of adult HTN was 47.7% in the US from 2021-2023.² During the previous year of diagnosis claims history 20% of the Connecticut Medical Assistance Program population received a diagnosis of primary HTN and 0.3% received a diagnosis of secondary HTN. Nationally, approximately 5-25% of adult patients with HTN have secondary causes which can include obstructive sleep apnea (OSA), use of drugs or alcohol, primary aldosteronism, chronic kidney disease, or use of medications that increase BP.³ It is important to screen for secondary causes of HTN when evaluating patients with high BP (HBP).

The 2025 AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pres-

sure in Adults: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines was published last year, replacing the previously published guidance of 2017.⁴ To ensure practitioners are aware of the changes to the management of HBP, the Solution Set Oversight Committee of the American College of Cardiology (ACC) published "2025 High Blood Pressure Guideline-at-a-Glance," to highlight the most important changes within the guidance.⁵ Box 1 includes the 10 points taken directly from the ACC Guideline at a glance. Recommendations 1, 5, and 7 are bolded because they are the most significant changes between the 2017 guidelines and the current recommendations, while also addressing gaps in care.⁵

The first step in assessing whether a patient has HTN is obtaining a BP measurement. When measuring BP an upper arm cuff is the most reliable method as wrist, finger, and cuffless monitors can be inaccurate. Normal blood pressure is defined as a BP of < 120/80 mmHg, elevated HTN is defined as 120-129/<80 mmHg, stage 1 HTN is 130-139/80-89 mmHg, and stage 2 HTN is a BP of ≥ 140/90 mmHg (Table 1).³ To make a diagnosis of

HTN, it is recommended to take an average of multiple BP readings taken over three or more office visits.

The first line of defense against HTN includes lifestyle modifications such as weight loss, adopting a heart healthy diet, reduced salt diet, smoking cessation, exercise, limiting alcohol intake, and decreasing stress. If lifestyle modifications are unsuccessful at reducing HTN, pharmacologic intervention is the next step.

There are five classes of antihypertensives recommended to treat HTN, four of which are first line; thiazide diuretics, beta blockers (β-blockers), calcium channel blockers (CCBs), angiotensin receptor blockers (ARBs), and angiotensin converting enzyme inhibitors (ACEI). First line medications are ACEIs or ARBs, long acting dihydropyridine (DHP) CCBs (amlodipine), and thiazide diuretics (Image 1).³ Patients diagnosed with stage 1 HTN should attempt lifestyle modifications for 3-6 months. If there is no improvement after this time, it is recommended to initiate a single first line BP medication. Patients diagnosed with stage 2 HTN should implement lifestyle changes simultaneously with two first line BP meds in a combination tablet (Table 1).³ Examples include an ACEI or ARB + thiazide (lisinopril/HCTZ or irbesartan/HCTZ), ACEI or ARB + CCB (benazepril/amlodipine or valsartan/amlodipine, or β-blocker + thiazide (atenolol/chlorthalidone or metoprolol/HCTZ).³

While antihypertensives are highly effective when adhered to, adverse effects (AEs) of these medications contribute to nonadherence and poor BP control.⁶ Antihypertensive AEs are typically experienced early on in therapy

Blood Pressure (mm Hg)	Treatment Recommendations	Table 1. ³
Stage 2 hypertension: ≥140/90	▪ Reinforce lifestyle changes ▪ Recommend starting 2 BP meds (ideally a single-pill combo) for most patients	
Stage 1 hypertension: 130 - 139/80 - 89	▪ Implement lifestyle changes ▪ Advise starting a BP med for patients with CV disease (heart failure, etc), chronic kidney disease, diabetes, or 10-year PREVENT-CVD risk ≥7.5% ▪ If 10-year PREVENT-CVD risk <7.5% and average BP remains ≥130/80 after 3 to 6 months of lifestyle changes, then recommend a BP med	
Elevated: 120 - 129/<80	▪ Encourage lifestyle changes ▪ Check for meds (NSAIDs, decongestants, etc) or conditions (sleep apnea, etc) that can increase BP and address if needed	
Normal: <120/80	▪ Maintain healthy lifestyle habits	

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Box 1. 2025 High Blood Pressure Guideline-at-a-Glance

- 1. HBP is the most prevalent and modifiable risk factor for the development of CVDs, artery disease, heart failure, atrial fibrillation, stroke, dementia, chronic kidney disease, and all-cause mortality. The over-arching blood pressure treatment goal is <130/80mm Hg for all adults, with additional considerations for those who require institutional care, have a limited predicted lifespan, or are pregnant.**
2. Clinicians should collaborate with community leaders, health systems, and practices to implement screening of all adults in their communities and implement guideline-based recommendations regarding prevention and management of HBP to improve rates of blood pressure control.
3. Multidisciplinary team-based care is effective in assessing and addressing patient access to medications and other structural barriers to support individual patient needs and thereby reduce barriers to achieving hypertension control. Team members may include physicians, pharmacists, nurse practitioners, nurses, physician assistants/associates, dietitians, community health workers, and other health care professionals.
4. . Blood pressure is classified by the following framework: normal blood pressure is defined as <120 mm Hg systolic and <80 mm Hg diastolic; elevated blood pressure as 120 to 129 mm Hg systolic and <80 mm Hg diastolic; stage 1 hypertension as 130 to 139 mm Hg systolic or 80 to 89 mm Hg diastolic; and stage 2 hypertension as ≥140 mm Hg systolic or ≥ 90 mm Hg diastolic.
- 5. For all adults, lifestyle changes, including maintaining or achieving a healthy weight, following a heart-healthy eating pattern (such as DASH [Dietary Approaches to Stop Hypertension]), reducing sodium intake, increasing dietary potassium intake, adopting a moderate physical activity program, managing stress, and reducing or eliminating alcohol intake are strongly recommended to prevent or treat elevated blood pressure and hypertension.**
6. Initiation of medication therapy to lower blood pressure in addition to lifestyle interventions is recommended for all adults with average blood pressure ≥140/90 mm Hg and/or for selected adults with average blood pressure ≥130/80 mm Hg who have clinical CVD, previous stroke, diabetes, chronic kidney disease, or increased 10-year predicted cardiovascular risk of ≥7.5% defined by PREVENT™ (Predicting Risk of cardiovascular disease EVENTS).*
- 7. In adults with average blood pressure ≥130/80mm Hg and at lower 10-year CVD risk defined by PREVENT* of <7.5%, initiation of medication therapy to lower blood pressure is recommended if average blood pressure remains ≥130/80 mm Hg after an initial 3- to 6-month trial of lifestyle modification.**
8. For all adults with stage 2 hypertension, the initiation of antihypertensive drug therapy with 2 first-line agents of different classes in a single-pill, fixed-dose combination is preferred over 2 separate pills to improve adherence and reduce time to achieve blood pressure control.
9. Home blood pressure monitoring combined with frequent interactions with multidisciplinary team members using standardized measurement and treatment protocols and home measurement protocols is an important integrated tool to improve rates of blood pressure control. Reliance on cuffless devices, including smartwatches, for accurate blood pressure measurements should be avoided until these devices demonstrate greater precision and reliability.
10. Severe hypertension in nonpregnant individuals, defined as blood pressure >180/120 mm Hg, without evidence of acute target organ damage, should be evaluated and treated in the outpatient setting with initiation, reinstitution, or intensification of oral antihypertensive medications in a timely manner.

*Developed by the American Heart Association in 2023, the Predicting Risk of Cardiovascular Disease EVENTS (PREVENT) equations estimate 10-year and 30-year risk for total cardiovascular disease (CVD), including atherosclerotic CVD (ASCVD) and heart failure (HF). It is the first risk tool to combine cardiovascular, kidney, and metabolic health measures to guide primary prevention-focused treatment decisions.⁷

What's the Hype with Hypertension

Image 1.³

ACE inhibitors (ACEI)
(lisinopril, etc)

OR

ARBs
(losartan, etc)

Long-acting dihydropyridine calcium
channel blockers
(amlodipine, etc)

Thiazide diuretics
(hydrochlorothiazide [hctz], etc)

4. CCB + thiazide diuretic
5. ARB + thiazide diuretic

HTN is a common and chronic disease state that if left untreated contributes to CVD and heart disease, the leading cause of death in the US and worldwide. The 2025 Clinical Practice Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults emphasizes 10 main points (Box 1) for guiding care. These points stress the importance of lowering HBP, the largest modifiable risk factor for CVD and the importance of screening for secondary causes of HTN. The guideline also recommends implementation of a single first line agent for stage 1 HTN, and initiation of two antihypertensives in a single pill to increase adherence for stage 2 HTN. A recent meta-analysis examined the tolerability of the five classes of antihypertensives, concluding that ARBs are the most tolerated class. Other caveats from the analysis can help clinicians select the best treatment regimen when individualizing patient care. Prescribers should always take into consideration comorbid conditions as some will dictate the best first line agent to use (Image 2).³

or just after starting treatment, therefore, when selecting an antihypertensive, it is important to be aware of the associated AEs that contribute to nonadherence or the discontinuation of therapy.⁶

Published this year, a large meta-analysis of 716 clinical trials reported that BP treatment discontinuation due to AEs was significantly increased by CCBs, ACEIs plus CCBs, and β -blockers plus thiazide diuretics.⁶ Conversely, all ARB containing regimens had lower discontinuation rates due to AEs compared to placebo, with ARB monotherapy and ARB plus CCB showing statistical significance.⁶ Additional caveats of note from the recent publication include the following:⁶

- ◆ All antihypertensive regimens significantly increased dizziness with higher rates observed with combination therapies versus monotherapy.
- ◆ All regimens significantly decreased headaches, with the exception of CCBs.
- ◆ ARB monotherapy and ARB plus CCB were

associated with less treatment discontinuation compared to placebo.

- ◆ CCB monotherapy, ACEI plus CCB, and β -blocker plus thiazide diuretic were associated with more treatment discontinuation due to adverse events.
- ◆ Diuretic therapy trials had the lowest occurrence of edema, whereas CCB therapy trials had the highest rates of edema.
- ◆ Cough is significant with the ACEI class.
- ◆ β -blockers may be associated with higher rates of withdrawal compared to other classes of antihypertensives.
- ◆ There is evidence that ACEIs and ARBs can improve mood and quality of life.
- ◆ ARBs may be the most tolerated class of antihypertensives.

In short term trials, the top best five tolerated drug classes or combinations in order and in terms of treatment discontinuation due to ADEs are:⁶

1. ARB + CCB
2. ARB + β -blocker
3. ARB monotherapy

1. <https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm>

2. Fryar CD, Kit B, Carroll MD, et al. Hypertension prevalence, awareness, treatment, and control among adults age 18 and older: United States, August 2021–August 2023. NCHS Data Brief No. 511, October 2024.

3. Blackwelder RB, Carek S, Darby-Stewart A, et al. Hypertension treatment updates. Therapeutic Research Center (TRC). May 2026.

4. Jones DW, Ferdinand KC, Taler SJ, et al. 2025 AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM guideline for the prevention, detection, evaluation and management of high blood pressure in adults: a report of the American college of cardiology/American heart association joint committee on clinical practice guidelines. *Hypertension*. 2025;82:e212–e316.

5. Gulati M, Moore MM, Cibotti-Sun M. 2025 high blood pressure guideline-at-a-glance. *JACC*. 2025;86(18):1560–1566.

6. Wang N, Van Der Hoorn S, Pant R, et al. Adverse effects and treatment discontinuation of blood pressure-lowering drugs and combinations. *JAMA*. 2026:e1–e11.

7. The American Heart Association PREVENT™ Online Calculator - Professional Heart Daily | American Heart Association

Image 2.³ Treatment of Hypertension in Patients with Cardiovascular Comorbidities

WITHOUT CVD or CKD	CAD ^b	Stroke/TIA ^a	CKD ^b	HF ^c EF ^b	HFpEF ^b	Other CVD
One, or low-dose combo ^b of two, of these: ACEI ^h or ARB ^h thiazide, ³ long-acting DHP CCB ^{1,2,e}	Evidence-based ACEI, ^h ARB ^h or BB ^d (BB especially for recent MI or ACS, or angina) ^{1,11} Add-ons: long-acting DHP CCB, ^e thiazide, ³ MRA ^{g,11}	Thiazide, ^a ACEI ^h or ARB ^{1,h}	ACEI ^h or ARB ^{1,h} Can add a long-acting DHP CCB ^e or thiazide (loop if eGFR <30 mL/min/1.73m ²). ^{1,4} Consider adding finereone for diabetic kidney disease. ¹⁷	Evidence-based BB; ^d MRA ^g (if symptomatic, eGFR >30 mL/min/1.73m ² , potassium <5 mEq/L); sacubitril/valsartan (NYHA Class II to III [preferred over ACEI ^h or ARB ^h]), and SGLT2 inhibitor (if symptomatic) ¹ Loop diuretic as needed. ¹ Can add hydralazine plus isosorbide dinitrate in Black patients, or other patients who can't take sacubitril/valsartan, ACEI ^h or ARB. ^{1,h}	SGLT2 inhibitor. ^{1,5} Consider MRA ^g or sacubitril/valsartan or ARB. ^{1,5,h} Loop diuretic as needed. ¹ HFmrEF ^b SGLT2 inhibitor. ⁵ Consider MRA ^g or sacubitril/valsartan or ARB. ⁵ Consider Evidence-based BB. ^{4,5}	A-fib^b ACEI, ^h ARB ^h or MRA ^{1,g,1,3} Aortic disease^b BB ^d (largely extrapolated from acute management) ¹ Aortic VALVE regurgitation^b ACEI, ^h ARB ^h (note: antihypertensives that reduce HR may increase SBP)

CVD-Cardiovascular Disease, CKD-Chronic Kidney Disease, CAD-Coronary Artery Disease, MI-Myocardial Infarction, ACS-Acute Coronary Syndrome, TIA-Transient Ischemic Attack, eGFR-estimated Glomerular Filtration Rate, HF^cEF-Heart Failure with reduced Ejection Fraction, MRA-Mineralocorticoid receptor antagonists, SGLT-2-Sodium Glucose cotransporter 2 inhibitors, HFpEF-Heart Failure with preserved Ejection Fraction, HFmrEF-Heart Failure with mid range Ejection Fraction, A-fib-Atrial fibrillation, SBP-Systolic Blood Pressure